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| EXAMINER |
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BATISTA, MARCOS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/576873
Filing Date: 04/21/2006
Appellant(s): John R. Lastova

John R. Lastova
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 03/08/2010 appealing from the office action mailed 12/08/2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The Appellant's statement of the status of amendments after final rejection contained in the brief is incorrect. The Appeal Brief should have been directed to non-final action mailed on 12/08/2009.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The Appellant's statement of the grounds of rejection to be reviewed on appeal is incorrect. Claims 30-33, 35, 36, 38-71 stand rejected based on Rinchiuso, Le and **Forssell**, however, Appellant stated that the above claims stand rejected based on Rinchiuso, Le and **Tan**.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

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|-------------------|--------------------------|-----------------|
| US 20040196861 A1 | Rinchiuso, Joseph et al. | October 7, 2004 |
| US 20070097941 A1 | Le, Lich et al. | May 3, 2007 |
| US 20030142657 A1 | Forssell, Mika | July 31, 2003 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 30-33, 35, 36, 38-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinchiuso et al. (US 20040196861 A1), hereafter “Rinchiuso,” in view of Le et al. (US 20070097941 A1), hereafter “Le,” further in view of Forssell (US 20030142657 A1), hereafter “Forssell.”

Consider claims 30, 40, 44, 50, 51, 56, and 67, Rinchiuso discloses a method of polling in a packet-based data communications system, said communications system comprising a base station system (**100**) polling connected user equipment (**113**) wherein said polling is performed according to: Rinchiuso also teaches a complementary second type of polling requiring the user equipment to transmit a data packet to the base station system in response to reception of polling of the second type (**see fig. 12, [0025], [0057]** – Corresponding to a second type of polling, the base station **100** requires the remote unit (**113**) to send a dummy data packet if no data is available to keep the channel up).

Rinchiuso, however, does not particular refer to a first type of polling allowing said user equipment to choose whether or not to transmit a data packet to the base station system in response to reception of polling of the first type.

Le, in analogous art, teaches a type of polling allowing said user equipment to choose whether or not to transmit a data packet to the base station system in response

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to reception of polling of this type (**see pars. 0008 lines 8-10, 0009 lines 1-4**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Rinchiuso and have it include a type of polling allowing said user equipment to choose whether or not to transmit a data packet to the base station system in response to reception of polling of this type, as taught by Le. The motivation would have been in order to better utilize transmission slots available to access points (**see par. 0005**).

Rinchiuso as modified by Le, however, does not particular refer to wherein said first type comprises polling with an uplink state flag and said second type comprises polling with a control block.

Forssell, in analogous art, teaches wherein said first type comprises polling with an uplink state flag and said second type comprises polling with a control block (**see pars. 0008 lines 1-6, 0033 lines 7-15**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Rinchiuso as modified by Le and have it include wherein said first type comprises polling with an uplink state flag and said second type comprises polling with a control block, as taught by Forssell. The motivation would have been in order to provide alert the mobile station about a polling request (**see pars. 0008 and 0033**).

Consider claims 31, 41, 46, 55 and 71, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 30, 40, 44, 51 and 67 above. Rinchiuso also teaches base station system performs polling according to the first type on a first logical

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channel, and performs polling according to the complementary second type on a second logical channel (see fig. 7, [0049] – The base station assigned logical channels for polling and control purposes LLC).

Consider claims 32, 42, 47, 52 and 68, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 30, 40, 44, 51 and 67 above. Rinchiuso also teaches the base station system transmits polling information to said user equipment, said information enabling the user equipment to identify the polling type of the received polling (see [0022], [0057] – In [0022], the remote unit is in a suspended state listening to polling request from the base station, but the remote units is taking no action if not data is to be transmitted. In [0056], the remote unit will transmit a dummy block if not data is available on a response to a polling request from the base station. The above mentioned procedures allow the remote unit to distinguish between one type of polling and the other).

Consider claims 33, 43 and 48, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 32, 42 and 47 above. Rinchiuso also teaches polling information from the base station system is based on a current radio traffic situation in the communication system (see [0056], [0057] – The base station periodically polls the remote unit to check on transmission status).

Consider claims 35, 49 and 58, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 30, 44 and 56 above. Rinchiuso also teaches the communications system is selected from at least one of: a General Packet Radio Service (GPRS) communication system, an Enhanced GPRS (EGPRS) communication

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system, a GPRS Enhanced Data rates for GSM (Global System for Mobile communications) Evolution (EDGE) communications system, a Wideband Code Division Multiple Access (W-CDMA) communications system, a CDMA2000 communications system, a Wireless Local Area Network (W-LAN) communications system (see [0019]).

Consider claims 36, 63 and 65, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 30, 50 and 56 above. Rinchiuso also teaches wherein said user equipment in response to reception of said polling of the second type transmits a user data packet to the base station system if said user data packet is available for transmission in the user equipment, otherwise the user equipment transmits a dummy data packet (see fig. 11, [0056]). Rinchiuso further teaches wherein said user data packet comprises user payload data and said dummy data packet comprises data enabling the base station system to identify the user equipment (see fig. 11, [0056], [0057] – Whenever a remote unit communicates with a base station in a packet-data system, the data sent from the remote unit contains the id of the remote unit).

Consider claims 38, 60, 62, 64 and 66, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 30, 40, 44, 50 and 56 above. Le also teaches wherein said user equipment in response to reception of said polling of the first type sends a user data packet to the base station system if said user data packet is available for transmission in the user equipment (see pars. 0008 lines 8-10, 0009 lines 1-4). The motivation would have been in order to better utilize transmission slots available to

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access points (see par. 0005).

Consider claim 39, Rinchiuso as modified by Le and Forssell discloses the invention as in claim 30 above. Le also teaches wherein said user equipment in response to reception of said polling of the first type does not send any type of data packet to the base station system if a user data packet is not available for transmission in the user equipment (see pars. 0008 lines 8-10, 0009 lines 1-4). The motivation would have been in order to better utilize transmission slots available to access points (see par. 0005).

Consider claim 45, Rinchiuso as modified by Le and Forssell discloses the invention as in claim 44 above. Rinchiuso also teaches wherein said base station system comprises third means adapted for analyzing the current radio traffic situation in the communications system and for determining which type of polling to transmit (see fig. 6, [0046] – The base station can use a data limit as a third means for using another polling type).

Consider claims 53 and 69, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 51 and 67 above. Rinchiuso also teaches wherein said equipment further comprises a buffer unit for storing user data packets awaiting transmission. (see [0022], [0031] – As explained in [0022], the polling illustration is done from the base station to the remote unit, but the same can be performed from the remote unit to the base station in a similar manner. The buffer shown in [0031] would correspond to the remote unit when the remote unit is transmitting the data).

Consider claims 54 and 70, Rinchiuso as modified by Le and Forssell discloses

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the invention as in claims 53 and 67 above. Rinchiuso teaches wherein said first circuitry and said second circuitry are adapted to check if there are any user data packets in the buffer in response to polling from the base station system (see [0031], [0056] - The base station will periodically give the remote unit a chance to transmit data. This means that the remote unit will transmit any available data (buffered or current) to the base station on polling request from the base station).

Consider claims 59 and 61, Rinchiuso as modified by Le and Forssell discloses the invention as in claims 40 and 44 above. Rinchiuso teaches wherein said user equipment in response to reception of said polling of the second type transmits a user data packet to the base station system if said user data packet is available for transmission in the user equipment, otherwise the user equipment transmits a dummy data packet (see fig. 11, [0056]). Le also teaches wherein said user equipment in response to reception of said polling of type one shall send a user data packet to the base station system if said user data packet is available for transmission in the user equipment (see pars. 0008 lines 8-10, 0009 lines 1-4). The motivation would have been in order to better utilize transmission slots available to access points (see par. 0005).

(10) Response to Argument

a) Regarding independent claim 30

Applicant argues:

i) The Combination of Rinchiuso, Le, and Forssell Does Not Teach What Is Claimed.

Representative claim 30 recites: "a first type of polling allowing said user equipment

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to choose whether or not to transmit a data packet to the base station system in response to reception of polling of the first type" and "a complementary second type of polling requiring the user equipment to transmit a data packet to the base station system in response to reception of polling of the second type." This combination of features is missing from the applied references (see Brief page 14).

- The primary reference to Rinchiuso only teaches one type of polling, which requires that the mobile terminal transmit a dummy uplink control.
- Le also only teaches one type of polling where the wireless devices "are not required to upload data responsive to being polled and in many cases do not."

Thus, none of the three applied references teaches using or recognizes the benefits of using the claimed two different types of polling techniques. Accordingly, the rejection is improper (see Brief page 16).

ii) The Appellant also states that the Combination of Rinchiuso, Le, and Forssell Also Fails to Teach Polling With An Uplink State Flag for the First Type and Polling with a Control Block for the Second Type.

Examiner answers:

- i)** As can be seen by the Appellant's arguments, the cited reference of Rinchiuso discloses one of the two types of polling, which is the second polling type of the claimed invention. The second type of polling requires the mobile terminal to transmit something back to the base station in response to a polling request. Rinchiuso discloses a mobile terminal transmitting dummy data in response to a

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polling request when the mobile terminal has not data to transmit. The cited reference of Le, as stated by the Appellant, also discloses one type of polling. The polling type of Le's corresponds to the first type of polling of the claimed invention. The first type of polling allows a mobile terminal to choose whether or not to respond to a polling request. The Appellant's main argument is that the claimed invention claims two types of polling and that those two types of polling are not disclosed by a single reference alone. The Appellant also states that there is not reason to combine Rinchiuso and Le to arrive at the claimed invention. The Examiner states that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the invention of Rinchiuso with the teachings of Le in order to better utilize transmission slots available in the base station.

Examiner answers:

ii) The references of Rinchiuso and Le were cited to show the two types of polling of the claimed invention. Even though Rinchiuso discloses polling of the second type comprising a control block (*Rinchiuso, par. 0056 lines 8-10, The base station will periodically give the remote unit a chance to transmit data and if the remote unit has no data then the remote unit sends a dummy control block 1104*), both Rinchiuso and Le are silent regarding polling of the first type comprising an Uplink State Flag. Forssell, however, discloses polling using either a control block or an Uplink State Flag. The Appellant states that Forssell only

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discloses one type of polling, which is the second type of polling. However, the Examiner states that Forssell's reference was used to show that polling using either a control block or an uplink state flag was known in the art and that a person of ordinary skill in the art at the time the invention was made would have modified the invention of Rinchiuso and Le with the teachings of Forssell in order to provide an alert to the mobile station about a polling request.

Forssell, Paragraph 33:

"[0033] The invention proposes that the BTS participates in the uplink sending permission assignment procedure when the PCU is not located at the BTS site. In the following a preferred embodiment of the invention is described with reference to FIG. 4 illustrating a message sequence diagram according to an embodiment of the invention. The PCU polls the MS every Nth BP (e.g. every second or third BP). **Polling can be done e.g. by assigning the MS an uplink sending permission by e.g. including an USF (Uplink State Flag) allocated for the mobile station in a downlink RLC/MAC block's MAC header whereupon the MS may transmit in the uplink direction on the next block period as described earlier and response to the polling.** Polling can also be done e.g. by using a Packet Polling Request message with an RRBP field in the MAC header. When an MS is being polled, the PCU preferably notifies the BTS about it. The notification is given e.g. as part of PCU-TRAU frame control information in which the RLC/MAC block containing the polling command is transferred (51) from the PCU to the BTS. When the BTS receives such a polling command, it saves some parameters associated with the PCU-TRAU frame containing the RLC/MAC block in which the MS is being polled and forwards (52) the RLC/MAC block to the MS. Such saved parameters are e.g. the id of the MS to be polled (e.g. the USF in the MAC header), preferably the Tx power level the BTS will use when sending the RLC/MAC block in the air and optionally the description of other time slots the MS is using. **The MS id may be given separately along with the polling command or the BTS may decode the id from the received RLC/MAC block (e.g. the USF from the MAC header of the RLC/MAC block).** When the BTS receives a response (53) from the MS, the BTS observes if the received frame indicates the MS has data to be transmitted. Such an indication may be e.g. an RLC/MAC data block instead of e.g. a Packet Uplink Dummy Control Block in which case the Packet Uplink Dummy Control Block would indicate that the MS has no data to be

transmitted at the moment. The response containing RLC/MAC block is forwarded (54) to the PCU.”

b) Regarding independent **claims 31, 41, 46, 55 and 71**

Applicant argues:

i) The Combination of Rinchiuso, Le, and Forssell Fails to Teach Dependent Claim Features. Several dependent claim features are also missing from both Rinchiuso, Le, and Forssell. For example, claims 31, 41, 46, 55, and 71 recite polling according to a first type on a first logical channel and polling according to a complementary second type on a second logical channel. But there is no specific teaching of first and second different logical channels. Nor is there a teaching of polling according to a first type on a first logical channel and polling according to a complementary second type on a second logical channel.

Examiner answers:

i) Rinchiuso discloses one type of polling (see Examiner Answer i) above) utilized by a base station and mobile station. At paragraph 49, Rinchiuso discloses the assignment of logical channel to the mobile terminal by the base station in order to exchange control signal. This suggests that logical channels will be assigned to mobile terminals wishing to respond to a polling request, which is a control signal. A person of ordinary skill in the art at the time the invention was made would have combined Rinchiuso's reference with Le and Forssell to arrive at two different types of polling that can use a control block or an uplink state flag and that can be transmitted over a plurality of logical channels.

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(11) *Related Proceeding(s) Appendix*

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's Answer.

(12) *Conclusion*

Therefore, in view of the above reasons and having addressed each of Appellant's arguments, it is believed that the rejections should be sustained.

Respectfully submitted,

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